

42. ADDITIONS TO THE FLORA OF HIMACHAL PRADESH FROM KULU DISTRICT

The most comprehensive work dealing with the flowering plants of Himachal Pradesh is by Chowdhery and Wadhwa (1984). It enumerates 3134 taxa from this north-west Himalayan State. Subsequently, at least 37 publications have appeared. We are engaged in the systematic survey of the flora of Kulu dist. since 1988. Extensive and intensive botanical explorations of this district during 1988-1992, with sporadic subsequent visits, have resulted in the collection of 930 species of spermatophytes distributed among 504 genera of 126 families. In this paper we present 32 species which are additions to the flora of Himachal. The arrangement of the families is after Hooker (1872-1897). All the specimens cited here are conserved in the herbarium of the Punjabi University, Patiala.

RANUNCULACEAE

Ranunculus sardosus Crantz

Growing among rocks in wet places, 1100-1500m.

Fl. & Fr.: March-April.

Larji, D.S. Dhaliwal 16350.

PAPAVERACEAE

Papaver macrostomum Boiss. & Himet ex Boiss.

Common weed in cultivated fields, 1500-2700m.

Fl. & Fr.: April-June.

Shoja, D.S. Dhaliwal 16351.

CRUCIFERAE

Raphanus raphanistrum Linn.

Common weed in wheat fields, 1200-1800m.

Fl. & Fr.: March-May.

Aut, Banjar; D.S. Dhaliwal 15582, 15999 & 16078.

CARYOPHYLLACEAE

Arenaria edgeworthiana Majumdar

On sandy rocks, 3000-4000m.

Fl. & Fr.: July-September.

Rohtang, D.S. Dhaliwal 15368.

Crastium fontanum Baumg. subsp. *membranaceum* (Edgew. & Hook.f) M. Sharma

Common weed of cultivation, 1200-2000m.

Fl. & Fr.: March-June.

Aut, Kulu; D.S. Dhaliwal 15566, 16070.

BALSAMINACEAE

Impatiens reidii Hook.f.

On alpine slopes, 3000-3500m.

Fl. & Fr.: August-September.

Beas Kund, D.S. Dhaliwal 15477.

PAPILIONACEAE

Lespedeza juncea (Linn. f.) Pers. var. *variegata* (Camb.) Ali

Common in moist and marshy places, 1200-1500m.

Fl. & Fr.: July-October.

Bhuntar, D.S. Dhaliwal 16110.

Medicago laciniata (Linn.). Mill.

Common in agricultural fields, orchards and wasteland, 1200-1500m.

Fl. & Fr.: April-June.

Bhuntar, Bajaura; D.S. Dhaliwal 15858, 16016.

Pueraria phaseoloides Benth.

A climber in the forests, 1200-1500 m.

Fl. & Fr.: Not seen throughout the course of this study.

Bhuntar, D.S. Dhaliwal 16331.

ROSACEAE

Potentilla fruticosa Linn. var. *rigida* (Wall. ex Lehm.) Wolf. Common at high altitudes on rocks, 3000-4000m.

Fl. & Fr.: July-September.

Rohtang Pass, Jalori Pass; D.S. Dhaliwal 15434, 16343.

Rubus nepalensis (Hook.f.) Kuntze

On open slopes and among shrubs, 2000-2500m.

Fl. & Fr.: May-July.

Dhundu, D.S. Dhaliwal 16291.

ONAGRACEAE

Oenothera affinis Cambess

Common on dry slopes and in wasteland among apple orchards, 1800-2200m.

Fl. & Fr.: June-September

Jarri, Naggar; D.S. Dhaliwal 16306, 16409.

UMBELLIFERAE

Bupleurum atrovioleaceum (Schulz) Nasir

On shaded rocks, 2500-3500m.

Fl. & Fr.: July-September.

Jalori Pass, D.S. Dhaliwal 15357.

Pleurospermum angelicoides (DC.) Clarke

Among rocks and open slopes, 3000-4000m.

Fl. & Fr.: August-September.

Beas Kund, D.S. Dhaliwal 15846.

VALERIANACEAE

Nardostachys grandiflora DC.

On alpine slopes, 3000-4000m.

Fl. & Fr.: June-August.

Jalori Pass, D.S. Dhaliwal 16202.

Valeriana stracheyi Clarke

On rocky banks and cliffs, 2000-3000m.

Fl. & Fr.: June-August.

Jalori Pass, D.S. Dhaliwal 15876.

COMPOSITAE

Artemisia absinthium Linn.

In forest clearings and near cultivated fields, 2000-3000m.

Fl. & Fr.: July-September.

Jalori Pass, D.S. Dhaliwal 16294

Aster himalaicus Clarke

Common on alpine rocks and open slopes, 2500-4000m.

Fl. & Fr.: August-October.

Beas Kund, Rohtang, Kothi, D.S. Dhaliwal 15495, 15999, 16138.

Coreopsis lanceolata Linn.

Common and gregarious on dry hill slopes and in wasteland 1200-1800m.

Fl. & Fr.: April-June.

Solang, D.S. Dhaliwal 16264.

Dubyaea hispida (D.Don) DC.

Among shrubs and on rocky slopes in forests, 3000-3500m.

Fl. & Fr.: August-September.

Jalori Pass, D.S. Dhaliwal 16271.

Erigeron annuus Pers.

In moist shady places in forests and on rocky slopes, 2000-3000m.

Fl. & Fr.: May-September.

Rahla Fall, Kothi; D.S. Dhaliwal 15311, 16127.

Onopordum acanthium Linn.

In wasteland, orchard and forest, 2000-2500m.

Fl. & Fr.: June-September.

Manali, Naggar; D.S. Dhaliwal 15771, 16059.

Tricholepsis karenium Kurz

On open dry slopes, 1000-2000m.

Fl. & Fr.: September-October.

Sainj, D.S. Dhaliwal 18031.

PRIMULACEAE

Androsace delavayi Franch.

On stony alpine slopes in dry areas, 3000-4000m.

Fl. & Fr.: June-July.

Jalori Pass (Serolsar lake), D.S. Dhaliwal 16427.

BUDDLEIACEAE

Buddleia madagascariensis Lam.

In shrubberies and on wasteland slopes, 1000-2000m.

Fl. & Fr.: March-May.
Bhuntar, D.S. Dhaliwal 15864.

BORAGINACEAE

Myosotis alpestris Schmidt
On exposed alpine slopes, 3000-4000m.
Fl. & Fr.: June-August.
Beas kund, Jalori Pass; D.S. Dhaliwal
15572, 15703.

SOLANACEAE

Physalis peruviana Linn.
In moist shady places and orchards, 1000-
1500m.
Fl. & Fr.: August-October.
Bhuntar, D.S. Dhaliwal 16183.

SCROPHULARIACEAE

Euphrasia simplex D. Don
On alpine slopes, 3500-4000m.
Fl. & Fr.: May-June.
Beas kund, D.S. Dhaliwal 16445.

LABIATAE

Nepeta raphanorhiza Benth.
A weed in orchards or dry situations, 2500-
3500m.
Fl. & Fr.: May-September.
Kothi, D.S. Dhaliwal 15400.

SPARGANIACEAE

Sparganium erectum Linn. subsp.
stoloniferum (Graebn.) Hara

Common in marshy places and along rice
fields, 1000-1800m.

Fl. & Fr.: May-July.
Raison, D.S. Dhaliwal 15895.

CYPERACEAE

Cyperus cuspidatus HBK.
Common on wasteland slopes, 1100-
1800m.

Fl. & Fr.: June-August.
Larji, D.S. Dhaliwal 16497

GRAMINEAE

Isachne himalaica Hook. f.
Common in wet places, 1000-2000m.
Fl. & Fr.: September-October.
Bhuntar, D.S. Dhaliwal 16205.

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M. SHARMA
D.S. DHALI WAL
Department of Botany,
Punjabi University,
Patiala-147002.

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